

Appl. No. 09/505,830  
Amdt. dated March 11, 2004  
Reply to Office action of December 31, 2003

Amendments to the Claims:

Claims 1-5 (canceled)

1       Claims 6 (currently amended): An apparatus for providing a  
2       crypto key and an associated checkword of said crypto key to an  
3       encryption device for a telemeter system of a missile, said  
4       apparatus comprising:

5               a key loader having said crypto key and said associated  
6               checkword stored therein;

7               a microcontroller connected to said key loader to  
8               receive said crypto key and said associated checkword  
9               from said key loader, said microcontroller sending a  
10          first variable request signal to said key loader to  
11          effect a transfer of said crypto key and said  
12          associated checkword from said key loader to said  
13          microcontroller for storage within said  
14          microcontroller;

15          said microcontroller including an internal EEPROM for  
16          storing said crypto key and said associated checkword  
17          and a copy of said crypto key and said associated  
18          checkword;

19          said microcontroller being connected to said encryption  
20          device, said microcontroller sending a sense in signal

Appl. No. 09/505,830  
Amdt. dated March 11, 2004  
Reply to Office action of December 31, 2003

21           to said encryption device to initiate a load of said  
22           crypto key and said associated checkword into said  
23           encryption device;

24           said microcontroller receiving from said encryption  
25           device a second variable request signal, said  
26           microcontroller, responsive to said second variable  
27           request, loading said crypto key and said associated  
28           checkword into said encryption device; and  
29           said microcontroller being connected to a transmitter  
30           for the telemeter system of said missile, said  
31           microcontroller providing a transmitter disable signal  
32           to said transmitter to disable said transmitter when  
33           said crypto key and said associated checkword are  
34           loaded into said encryption device preventing said  
35           crypto key and said associated checkword from being  
36           transmitted by said transmitter; and  
37           said microcontroller containing a computer software program  
38           for controlling, handling and interpreting said  
39           transfer of said crypto key and said associated  
40           checkword from said key loader to said microcontroller  
41           for storage within the internal EEPROM of said  
42           microcontroller, said computer software program

Appl. No. 09/505,830  
Amdt. dated March 11, 2004  
Reply to Office action of December 31, 2003

43           controlling, handling and interpreting the storing of  
44           said crypto key and said associated checkword and said  
45           copy of said crypto key and said associated checkword  
46           within the internal EEPROM of said microcontroller,  
47           said computer software program controlling, handling  
48           and interpreting the loading of said crypto key and  
49           said associated checkword into said encryption device  
50           from the internal EEPROM of said encryption device, and  
51           said computer software program controlling, handling  
52           and interpreting a disabling of said transmitter when  
53           said crypto key and said associated checkword are  
54           loaded into said encryption device and an enabling of  
55           said transmitter after a successful load of said crypto  
56           key and said associated checkword into said encryption  
57           device.

1       Claim 7 (original). The apparatus of claim 6 wherein said  
2       microcontroller comprises an 8-bit Microcontroller.

Claim 8 (canceled)

1       Claim 9 (original): The apparatus of claim 6 further comprising a

Appl. No. 09/505,830  
Amdt. dated March 11, 2004  
Reply to Office action of December 31, 2003

2 light emitting diode connected to said microcontroller, said  
3 light emitting diode displaying a status for a load of said  
4 crypto key and said associated checkword into said encryption  
5 device.

Claim 10 (canceled)

1 Claim 11 (currently amended): The apparatus of claim 10 further  
2 comprising a light emitting diode connected to said  
3 microcontroller, said light emitting diode displaying a status  
4 for an erase of said crypto key and said associated checkword and  
5 the copy of said crypto key and the associated checkword from the  
6 internal EEPROM of said microcontroller.

12 (canceled)

1 13 (currently amended). An apparatus for providing a crypto  
2 key and an associated checkword of said crypto key to an  
3 encryption device for a telemeter system of a missile, said  
4 apparatus comprising:  
5     a key loader having said crypto key and said associated  
6     checkword stored therein;

Appl. No. 09/505,830  
Amdt. dated March 11, 2004  
Reply to Office action of December 31, 2003

7       an 8-bit microcontroller connected to said key loader to  
8           receive said crypto key and said associated checkword  
9           from said key loader, said 8-bit microcontroller  
10          sending a first variable request signal to said key  
11          loader to effect a transfer of said crypto key and said  
12          associated checkword from said key loader to said 8-bit  
13          microcontroller for storage within said 8-bit  
14          microcontroller;  
15        said 8-bit microcontroller including an internal EEPROM for  
16        storing said crypto key and said associated checkword  
17        and a copy of said crypto key and said associated  
18        checkword;  
19        said 8-bit microcontroller being connected to said  
20          encryption device, said 8-bit microcontroller sending a  
21          sense in signal to said encryption device to initiate a  
22          load of said crypto key and said associated checkword  
23          into said encryption device;  
24        said 8-bit microcontroller receiving from said encryption  
25          device a second variable request signal, said 8-bit  
26          microcontroller, responsive to said second variable  
27          request, loading said crypto key and said associated  
28          checkword into said encryption device;

Appl. No. 09/505,830  
Amdt. dated March 11, 2004  
Reply to Office action of December 31, 2003

29       said 8-bit microcontroller being connected to a transmitter  
30               for the telemeter system of said missile, said 8-bit  
31               microcontroller providing a transmitter disable signal  
32               to said transmitter to disable said transmitter when  
33               said crypto key and said associated checkword are  
34               loaded into said encryption device preventing said  
35               crypto key and said associated checkword from being  
36               transmitted by said transmitter;

37       a first light emitting diode connected to said  
38               8-bit microcontroller, said first light emitting diode  
39               displaying a status for a load of said crypto key and  
40               said associated checkword into said encryption device;  
41       said 8-bit microcontroller being connected to a missile  
42               interface within said missile to receive a launch  
43               signal from said missile interface upon a launch of  
44               said missile, said 8-bit microcontroller, responsive to  
45               said launch signal, erasing said crypto key and said  
46               associated checkword and the copy of said crypto key  
47               and said associated checkword from the internal EEPROM  
48               of said 8-bit microcontroller;

49       a second light emitting diode connected to said  
50               8-bit microcontroller, said second light emitting diode

Appl. No. 09/505,830  
Amdt. dated March 11, 2004  
Reply to Office action of December 31, 2003

51               displaying a status for an erase of said crypto key and  
52               said associated checkword from said 8-bit  
53               microcontroller; and  
54               said 8-bit microcontroller containing a computer software  
55               program for controlling, handling and interpreting said  
56               transfer of said crypto key and said associated  
57               checkword from said key loader to said 8-bit  
58               microcontroller for storage within the internal EEPROM  
59               of said 8-bit microcontroller, said computer software  
60               program controlling, handling and interpreting the  
61               storing of said crypto key and said associated  
62               checkword and said copy of said crypto key and said  
63               associated checkword within the internal EEPROM of said  
64               8-bit microcontroller, said computer software program  
65               controlling, handling and interpreting the loading of  
66               said crypto key and said associated checkword into said  
67               encryption device from the internal EEPROM of said  
68               encryption device, said computer software program  
69               controlling, handling and interpreting a disabling of  
70               said transmitter when said crypto key and said  
71               associated checkword are loaded into said encryption  
72               device and an enabling of said transmitter after a

Appl. No. 09/505,830  
Amdt. dated March 11, 2004  
Reply to Office action of December 31, 2003

73           successful load of said crypto key and said associated  
74           checkword into said encryption device, and said  
75           computer software program controlling, handling and  
76           interpreting the erasing of said crypto key and said  
77           associated checkword and the copy of said crypto key  
78           and the associated checkword from the internal EEPROM  
79           of said 8-bit microcontroller.

14-15 (canceled)

1           16 (currently amended). The apparatus of claim 13 wherein  
2        said 8-bit microcontroller is connected to a loader interface  
3        within said missile to receive an erase signal from said loader  
4        interface, said 8-bit microcontroller, responsive to said erase  
5        signal, erasing said crypto key and said associated checkword and  
6        the copy of said crypto key and the associated checkword from the  
7        EEPROM of said 8-bit microcontroller.